

## CENTRAL INTELLIGENCE AGENCY

## INFORMATION REPORT

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SECURITY INFORMATION

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THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.  
THE APPRAISAL OF CONTENT IS TENTATIVE.  
(FOR KEY SEE REVERSE)

25X1 SOURCE:

PRODUCTION PATTERN OF THE PHOENIX VEB TUBE PLANT, RUDOLSTADT, THURINGIA

1. In August 1952, the Phoenix VEB plant of Rudolstadt, Thuringia, was making the following list of X-ray tubes:

## a. Diagnostic Type

- (1) Several types of small tubes having working voltages from 60 to 70 kilovolts.
- (2) Rotating anode tubes having simple focus in sizes 20, 30, 40, and 50 kilowatts, 100 KV
- (3) Double focus tubes having ratings of 20/40 and 30/50 KW, 100 KV.
- (4) Fixed anode (Festanode) tubes of 2, 6, and 10 KW, 100 KV.

## b. Therapeutic

- (1) 200 KV, 20 milliamperes
- (2) Contact therapy type, 60 KV, 8 m.a.

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(3) Surface therapy type, which was the same as an old Siemens-Rheinigen tube. I can not remember the rating.

(4) Normal construction tube, 400 KV, 5 m.a.

C. Special

- (1) Tubes for crystalline structure investigation with anodes of a variety of special materials such as silver, molybdenum, and others, having ratings of 54 and 60 KV.
- (2) Two special tubes, made to the specifications of Seifert in Hamburg and delivered to them. One had a 200 KV rating, the other was 300 KV.

2. The only tube production at Phoenix to my knowledge other than the above types was a much smaller volume of rectifier tubes. Of these latter, a full range was made complimentary to Koch and Sterzel's production of X-ray machines. The latter concern was not in position to make its own rectifiers, although it had done so up to 1945. Koch and Sterzel was completely dependent on Phoenix for rectifier tubes, and Phoenix sometimes had difficulty in meeting the former's demands, particularly when a rectifier tube called for the use of thorium-tungsten wire.

3. In my opinion, the Phoenix plant could, under conditions of full utilization of the plant, and with a two-shift operation, produce about 10,000 to 12,000 pieces a year. The plant is rather small, with, I would estimate, a labor force of about 250 people. I am of the opinion that Phoenix will not be able to develop the new types of X-ray tubes which may be required by Koch and Sterzel in the future.

although the production workers are quite competent, the people who staff the development section have limited ability. Furthermore, some of the best qualified people have left the plant. An example is a man by the name of UNGELENNK who, in spite of the fact that he had no formal academic background, was a very competent tube engineer. He left Phoenix about a year and a half ago, and I believe he is now with Siemens, Erlangen.

ACTIVITIES AT KOCH AND STERZEL, DRESDEN

4. The X-ray department of the Koch and Sterzel plant had a yearly capacity of from 6,000,000 to 8,000,000 DM East, expressed in terms of 1944 standard prices. If one takes the Westmark as the standard of comparison, these figures would have to be increased by about 70 per cent to give figures indicative of the current capacity. I recall there were about 400 people in the X-ray section, of which about 60 to 70 per cent were direct production workers. The prices which the plant received for its various products (Bruttopreise) were set by the Ministry, and the following approximate prices prevailed until recently: for small apparatus, 5,000 to 6,000 DM East; for medium sized apparatus, 10,000 to 12,000 DM East; for larger apparatus, 25,000 DM East or more. These prices were for the complete apparatus, including tube and accessories. These prices are

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also stated in terms of the 1944 base.

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5. Dr. LOHMANN knew very little about the transformer section of Koch and Sterzel.

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\_\_\_\_\_ made the estimate that the monthly turnover of the transformer section at present might be 2,000,000 DM East, and stated that there were probably 2,000 workers in this section. In 1945, about 90 per cent of the workers in the transformer section were direct production workers, but he feels that there are sure to be a higher percentage of white-collar workers now. He further reported that he had heard that the Plan for the entire plant called for a total labor figure (both transformer and X-ray sections) of 5,000 at the end of the Five-Year Plan (1954 or 1955).

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6. Cables were supplied to the Koch and Sterzel plant by the Kabelwerk Oberspree in Berlin. The quality of the cable received from this plant over the past two or three years varied greatly. At one time it might be good, while the next order would be poor.

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\_\_\_\_\_ however, the quality of the cable was about the same as that of the West Zone. The difficulties in the manufacture of cable stemmed from the lack of good raw materials; there did not seem to be other technological difficulties, because cables could be ordered to specifications.

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7. On occasion, we received sample cables from the West, but I know of no large-scale shipment of cable into Koch and Sterzel from the West.
8. Most of the dealings that Koch and Sterzel had with Wismut A.G. were concerned with the supply of transformers. All I can say about the transformers is that the Wismut officials seemed to put some emphasis on their delivery. The firm also supplied a few diagnostic X-ray units to the Wismut hospital, and, though they were the strongest diagnostic units, 80 KW, 100 KV, 500 m.a. made by Koch and Sterzel, they were completely standard. As far as I know, the director of Koch and Sterzel had no contact with the Wismut officials, and I can recall no names of persons who were associated with Wismut.
9. I can state categorically that no equipment, especially designed for military field use, was produced at Koch and Sterzel after 1945, although many field units had been made during the war. The USSR did not display any interest at all in military field X-ray units, probably because they still had enough of their own or enough of the Westinghouse units that had been furnished them under Lend-Lease. The only order that I can remember which can be construed as having something to do with the military was a set of perhaps 10 units for the Volkspolizei (VOPO). Even these units could not be considered suitable for field use, and, except for the fact that they were shipped in wooden crates of a specified kind, no particular precautions were taken.

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10. For each normal piece of equipment made by Koch and Sterzel, a single page description sheet was available. These could be collected in one book if desired, but there was no standard catalog as such. At the Leipzig Fair, for instance, literature (in the form of these sheets) was available only for the equipment on display.

HIGH VOLTAGE APPARATUS WORK AT KOCH AND STERZEL

11. The high-tension apparatus being built for outside installation [see Report No. [redacted]] that I have described previously could, I am sure, be converted for work in the field of atomic energy with rather minor changes. However, I do not know enough about the subject to say what these changes would be. The stated use to test high-voltage insulators is a normal use for the apparatus. 25X1
12. The condensers for the apparatus were made by a firm in Berlin/Weissensee. I can not remember the name of the plant, but I believe that at one time it was called "Yaroslav" and then the "Turbonit" plant.<sup>2</sup> The manufacture of condensers, both dry and oil-filled types was their specialty, and they produced all the condensers that Koch and Sterzel used.
13. In regard to the second betatron, on which I have previously reported [see [redacted]], I would like to emphasize that this project was not in an advanced stage and the work completed to date may consist only of the production of sketches and necessary calculations. Certainly no test model has been built. The Soviets may have inspired the development of the betatron; it is certain that they knew that the Germans were thinking of building it. 25X1

- 25X1A 1. [redacted] Comment: Possibly R. Seifert & Co., Fabrik fuer Roentgen-Apparate, P. 18 Hermann-Behn-Weg 7/11, which is listed in the 1950 edition of Das Deutsche Branchen Fernsprechbuch.

- 25X1A 2. [redacted] Comment: Possibly VEB Isolierstoff- und Kondensatorenwerk VVB, IKA, Berlin Weissensee, Lehder Strasse 34/35, is meant.

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